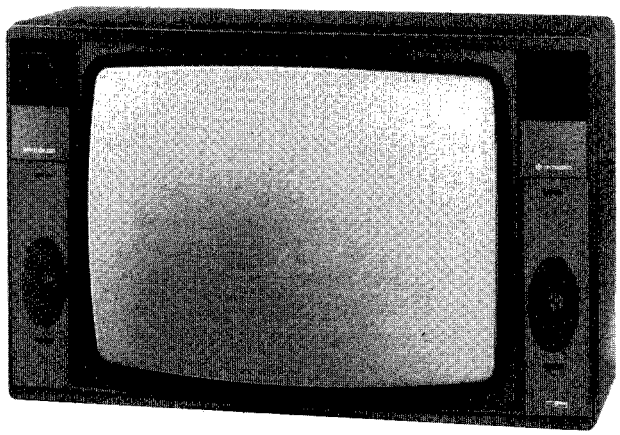
SERVICE INFORMATION



Technische Daten

Farbsystem
PAL

Empfangssystem
CCIR-Norm

Empfangsbereiche
VHF Kanal 2 – 12 (75 – 99)
UHF Kanal 21 – 69

Antenneneingang
75 Ω asymmetrisch

Tonausgangsleistung
2 x 10 W Musik

Stromversorgung
220 V ~, 50 Hz

Leistungsaufnahme
Betrieb 85 Wh/h
Stand-by 7,5 Wh/h

Specifications

Colour system
PAL

System of reception
CCIR-Norm

Channel of coverage
VHF channel 2 – 12 (75 – 99)
UHF channel 21 – 69

Antenna input
75 Ω asymmetrical

Sound output
2 x 10 W music

Mains voltage
220 V ~, 50 Hz

Power consumption
Normal 85 Wh/h
Stand-by 7,5 Wh/h

Dati tecnici

Sistema
PAL

CCIR-Norm

Campi di ricezione
VHF canale 2 – 12 (75 – 99)
UHF canale 21 – 69

Entrata antenna
Impedanza entrata 75 Ω

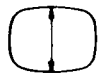
Potenza di uscita
2 x 10 W musicale

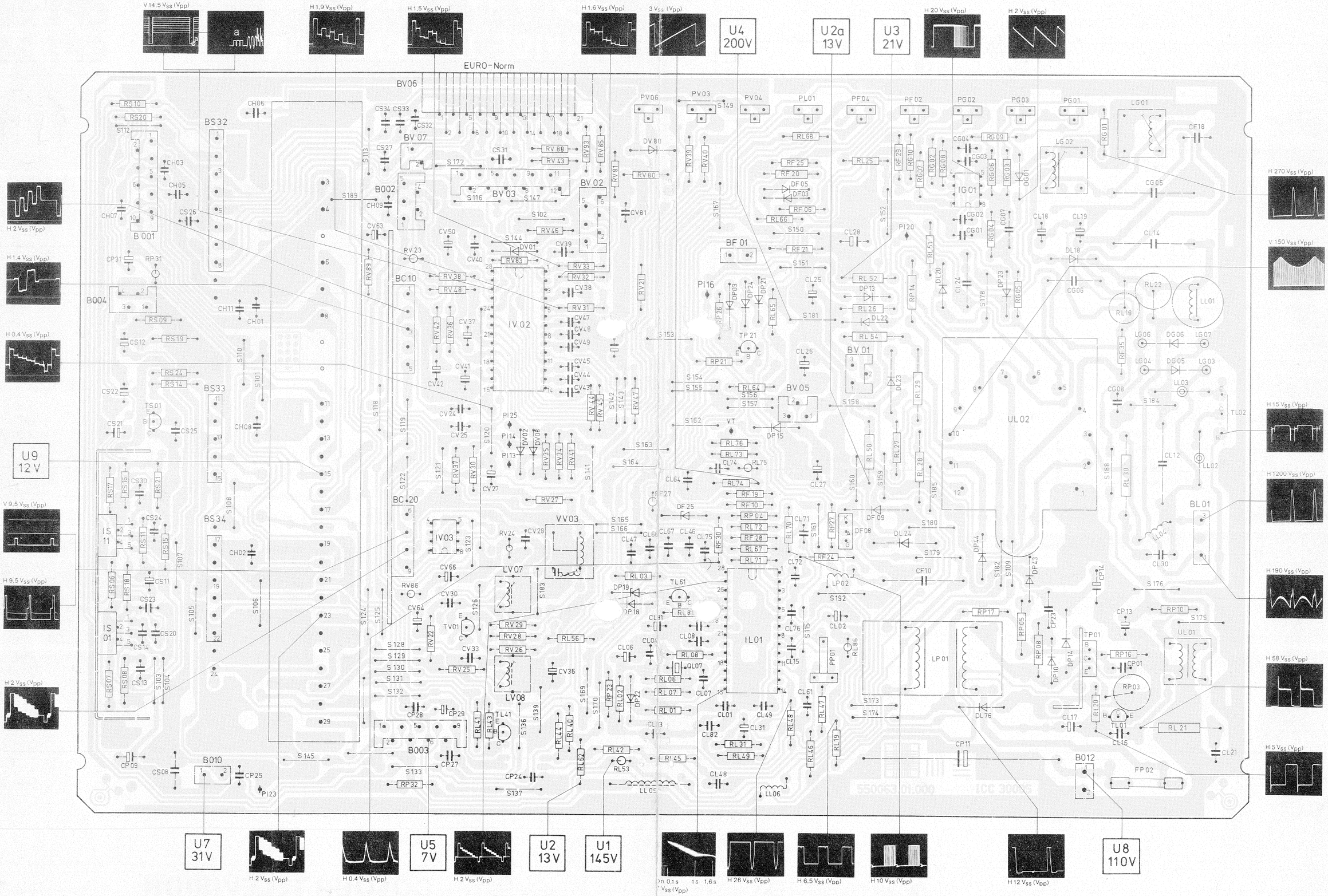
Alimentazione di tensione
220 V ~, 50 Hz

Potenza assorbita
Funzionamento 85 Wh/h
Pronto 7,5 Wh/h

COLOUR TELEVISION

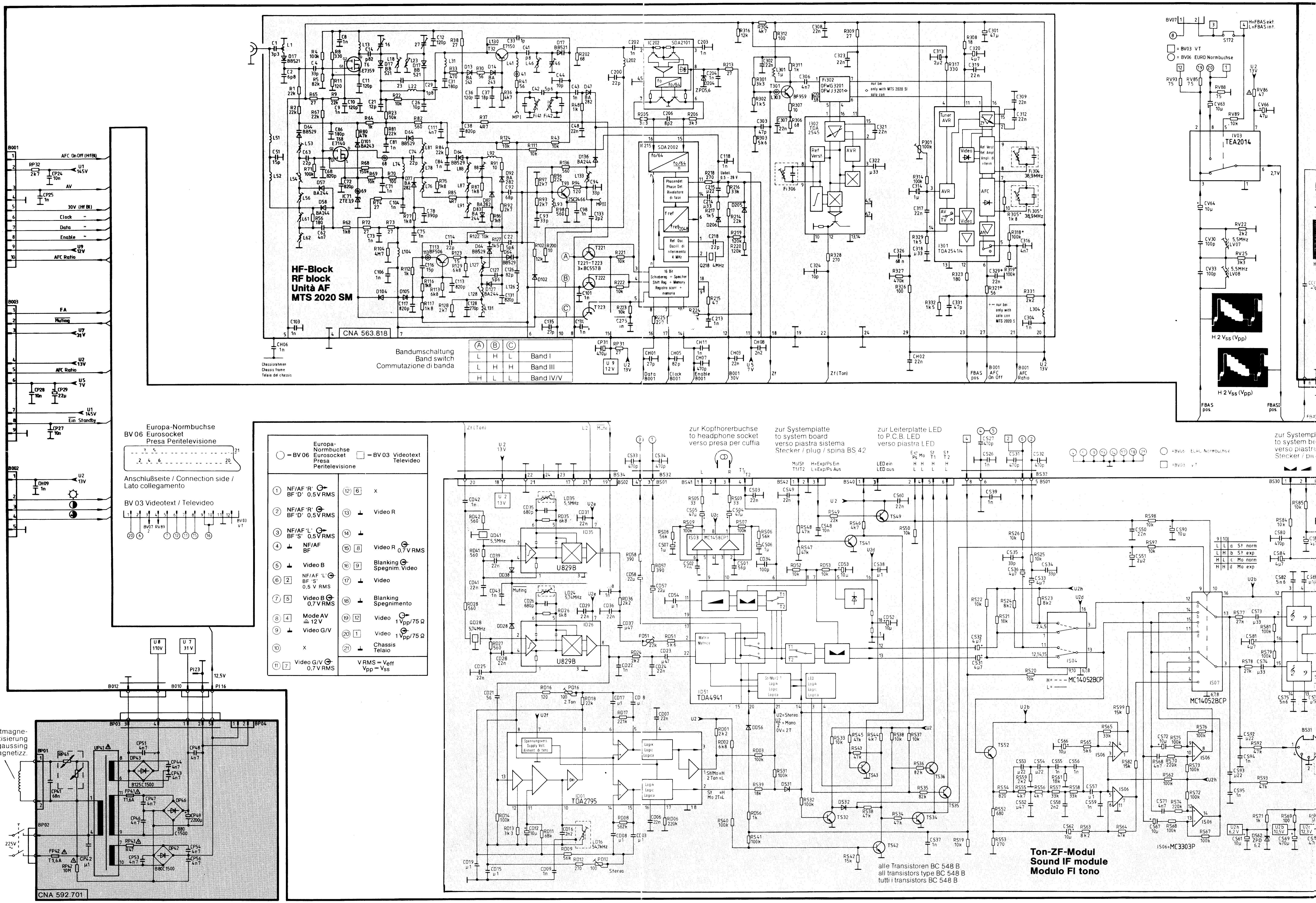
Einstellarbeiten / Initial adjustment / Operazioni di messa a punto

Einstellung Adjustment Taratura	Position Posizione	einstellen auf adjust to regolare su	Hinweise Notes Avvisi
Hauptspannung Principale voltage Tensione principale	PP 01	145 V ± 1 V	◑ + ☼ = min.
Horizontalamplitude Horizontal amplitude Ampiezza orrizzontale	PG 01		
Vertikalamplitude Vertical amplitude Ampiezza verticale	PF 02		
Horizontalposition Horizontal position Posizione orrizontale	PL 01		nach Einstellung Vertikalposition korregieren after setting, readjust vertical position dopo la taratura correggere la posizione verticale
Vertikalposition Vertical position Posizione verticale	PF 04		
Ost-West-Trapez East-West trapeze Trapezi est/ovest	PG 02		
Ost-West-Amplitude East-West amplitude Ampiezza est/ovest	PG 03		
5,5-MHz minimum	LV 07	5,5 MHz min.	Oscilloscope Emitter / Emittitore TV 60
4,43 MHz minimum	VV 03	4,43 MHz min.	Oscilloscope Emitter / Emittitore TV 60
Referenz-Oscillator 4,43 MHz **A**	CC 14	+ V, ± U farblos colourness senza sfumature di colore	FUBK-Sendertestbild FUBK transmitter test pattern Monoscopio del trasmettitore
B	CC 14	langsames Durchlaufen der Farbbalken until the colour bars wander slowly barre colori movimento lento	Farbtestbild Colour bar signal Segnale barre colore ③ ② 4,2 . . . 4,4 V – ①
PAL-Amplitude	PC 01	Paarigkeit min. Pairing min. Parita min.	
PAL-Phase	LC 05		
Schirmgitterspannung Screen grid voltage Tensione griglia schermo	PUG 2	Katode mit höchster Spannung auf 165 V– einstellen Adjust the cathode with the highest voltage to 165 V DC Regolare il catodo con la tensione più alta su 165 V–	PV 03 / PV 04 / PV 06: auf mechan. Mitte stellen / set to center position / portare in posiz. meccanica media ◑ + ☼ = min. Emitter / Emittitore / TV 50, TV 60, TV 70: messen / measure / misurare
Weißabgleich White alignment Taratura del bianco	PV 03	85 V_{SS} (V_{pp}): bei 20"/22" Geräten / with 20"/22" sets / con modelli 20"/22"	FUBK-Sendertestbild FUBK transmitter test pattern Monoscopio del trasmettitore
		100 V_{SS} (V_{pp}): bei 26" Geräten / with 26" sets / con modelli 26"	◑ = max. ☼ = min.
	PV 04 / PV 06	die hellen Flächen weiß einstellen adjust bright areas on screen to white regol. le parti chiare in modo che siano bianche	Oscilloscope Emitter / Emittitore TV 60
Grauabgleich Gray alignment Taratura dei grigi	PV 50 / PV 70	die dunklen Flächen farblos einstellen adjust dark areas on screen to colourness regolare le parti scure in modo che siano senza sfumature di colore	◑ = min. ☼ = Bild gerade sichtbar / picture just visable / immagine appena visibile Weiß- und Grauabgleich eventuell wiederholen Repeat white and gray alignment if necessary Pripetizione eventuale della taratura del bianco e dei grigi



Grundplatte
Basic P.C.B.
Piastra di base

Lötseite – Soldered side – Lato saldature


HF-Block
RF block
Unità AF
MTS 2020 SM
CNA 563.818
Bandumschaltung
Band switch
Commutazione di banda
Band I
Band III
Band IV/V
Europa-Normbuchse
BV 06 Eurosocket
Presa Peritelevisione
Anschlußseite / Connection side / Lato collegamento
BV 03 Videotext / Televideo
Entmagnetisierung
Degaussing
Smagnetizz.
CNA 592.701
zur Kopfhörerbuchse
to headphone socket
verso presa per cuffia
zur Systemplatte
to system board
verso piastra sistema
Stecker / plug / spina BS 42
zur Leiterplatte LED
to P.C.B. LED
verso piastra LED
U829B
TDA4941
TDA2795
MC14052BCP
MC3303P
TEA2014
TDA 2545
TDA 2541/4
SDA 2002
SDA2101
H 2 Vss (Vpp)
alle Transistoren BC 548 B
all transistors type BC 548 B
tutti i transistors BC 548 B
Ton-ZF-Modul
Sound IF module
Modulo FI tono

PAL-Decoder
Decoder PAL

H 1,7 V_{ss} (V_{pp})
H 2,2 V_{ss} (V_{pp})
H 1,5 V_{ss} (V_{pp})
H 1,5 V_{ss} (V_{pp})
H 2 V_{ss} (V_{pp})
H 1,5 V_{ss} (V_{pp})
H 1,8 V_{ss} (V_{pp})
H 2 V_{ss} (V_{pp})

IC01 AN5620X
IV03 TEA2014
IS01 TDA2541/4
IS04 MC14052BCP
IS07 MC14052BCP
IS08 A7630P
IS06+MC3303P
IV02 TDA3506
TL01 TEA 2026 A

CNA 592.675
CNA 592.684

Matrix / Video
Matrice / Video

Ton
Sound
Audio

Ton-ZF-Modul
Sound IF module
Modulo FI tono

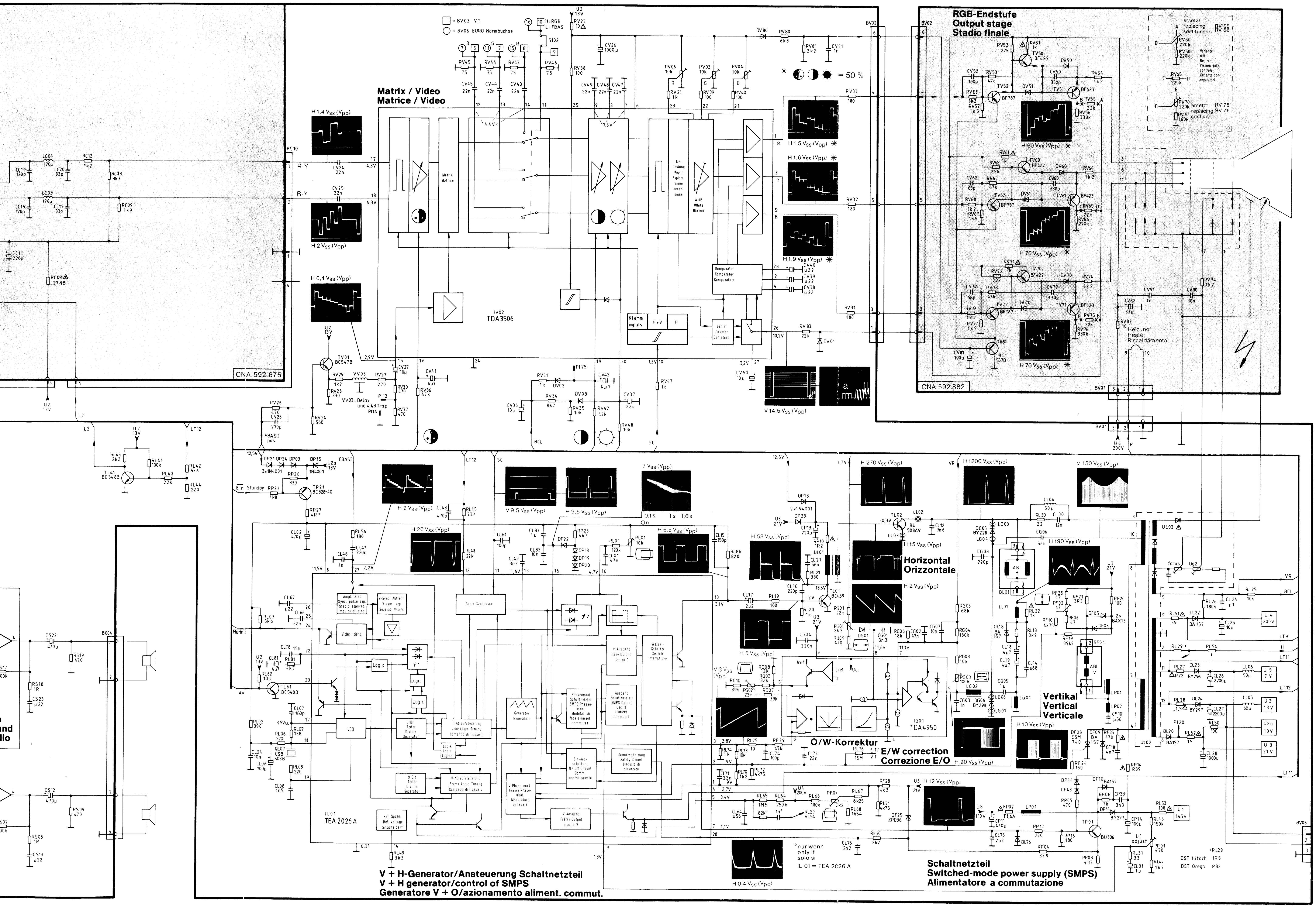
alle Transistoren BC 548 B
all transistors type BC 548 B
tutti i transistors BC 548 B

zur Leiterplatte LED
to P.C.B. LED
verso piastra LED

zur Systemplatte
to system board
verso piastra sistema
Stecker / plug / spina BS 30

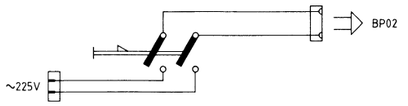
= BV03 VT
= BV06 EURO Normbuchse

V + H-Generator/Ansteuerung Sch
V + H generator/control of SMPS
Generatore V + O/azionamento ali

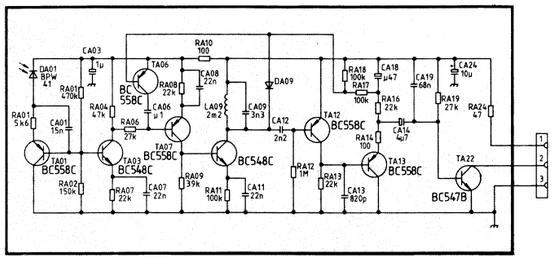


RGB-Endstufe
Output stage
Stadio finale
Matrix / Video
Matrice / Video
IV02
TDA3506
CNA 592.675
CNA 592.882
Horizontal
Orizzontale
Vertikal
Vertical
Verticale
O/W-Korrektur
E/W correction
Correzione E/O
IG01
TDA4950
IL01
TEA 2026 A
V + H-Generator/Ansteuerung Schaltnetzteil
V + H generator/control of SMPS
Generatore V + O/azionamento aliment. commut.
Schaltnetzteil
Switched-mode power supply (SMPS)
Alimentatore a commutazione
°nur wenn
only if
solo si
IL 01 = TEA 2026 A
Heizung
Heater
Riscaldamento
= 50 %

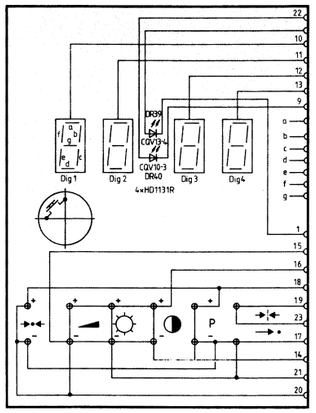
Netzschalter
Mains switch
Interruttore di rete



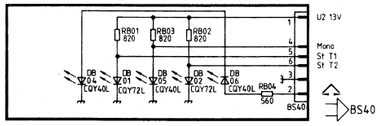
Infrarot-Vorverstärker
Infra-red pre-amplifier
Preamplificatore infra
CNA 583.521



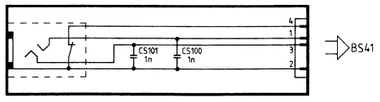
Bedienteilplatte
Control unit board
Piastra sezione comandi



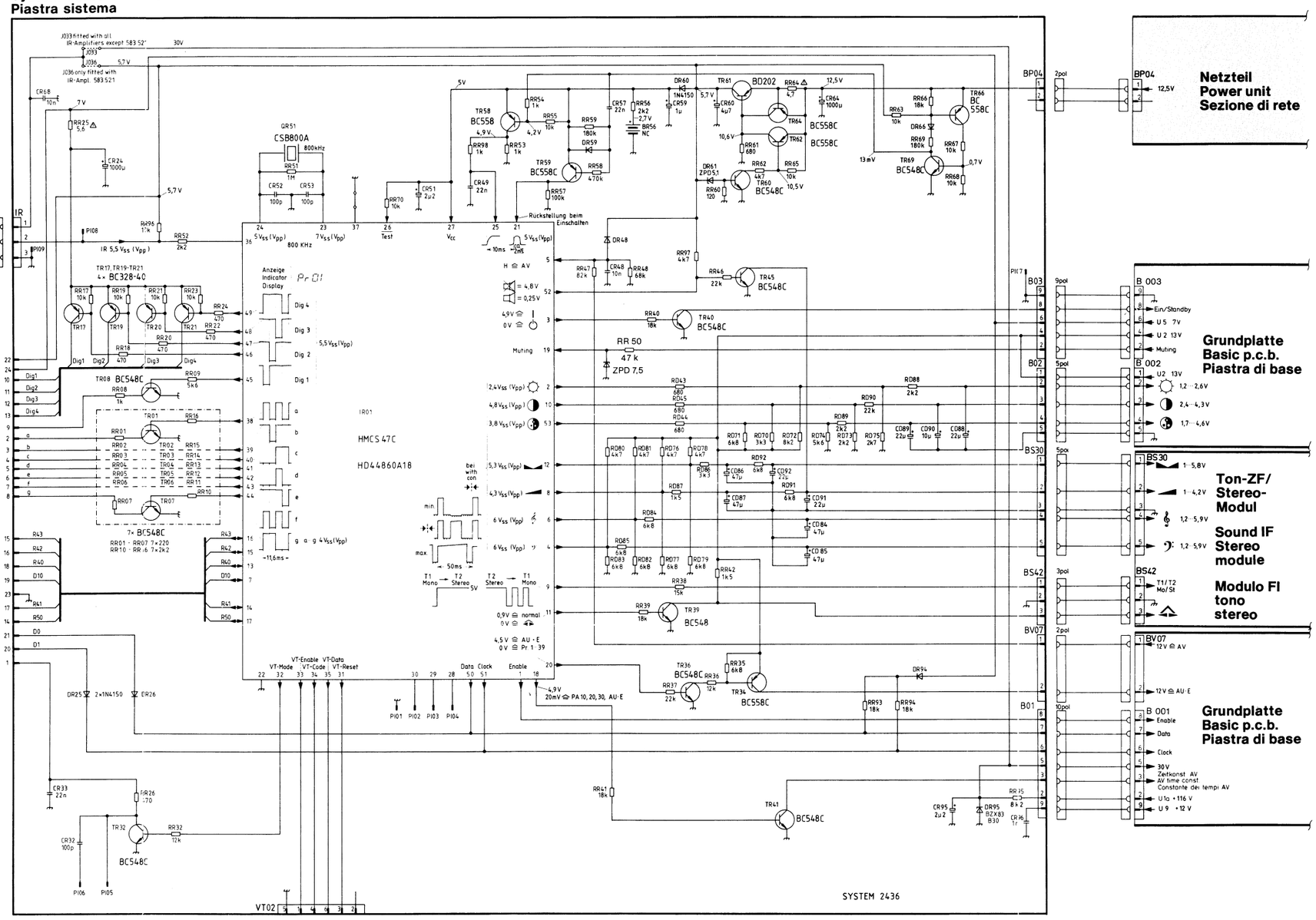
Leiterplatte LED
P.C.B. LED
Piastra LED



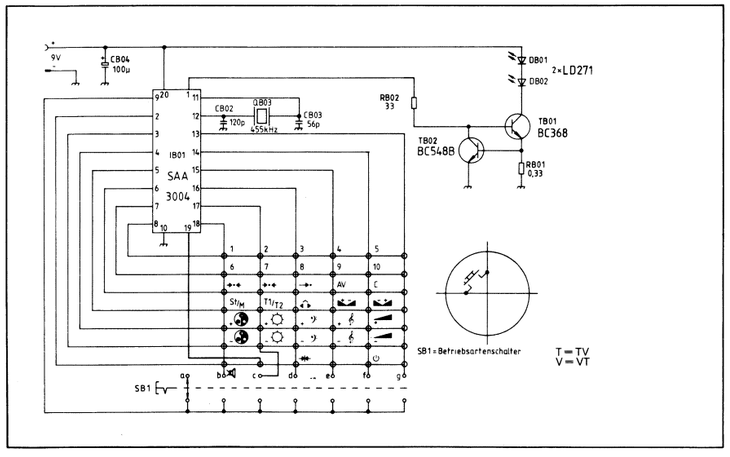
Kopfhörerbuchse
Headphone socket
Presa per cuffia



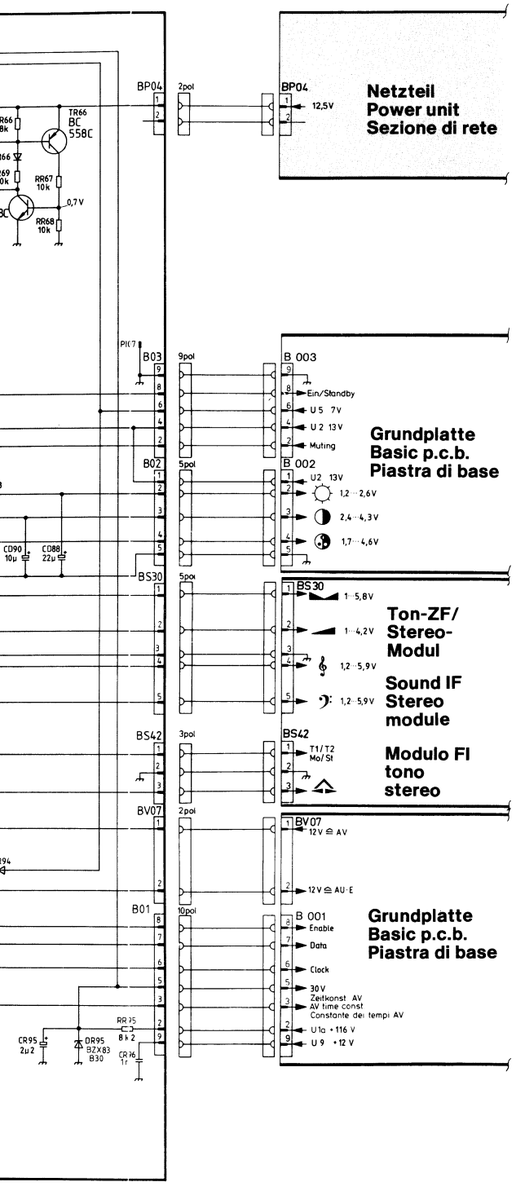
Systemplatte
System board **CNA 592.715**
Piastra sistema

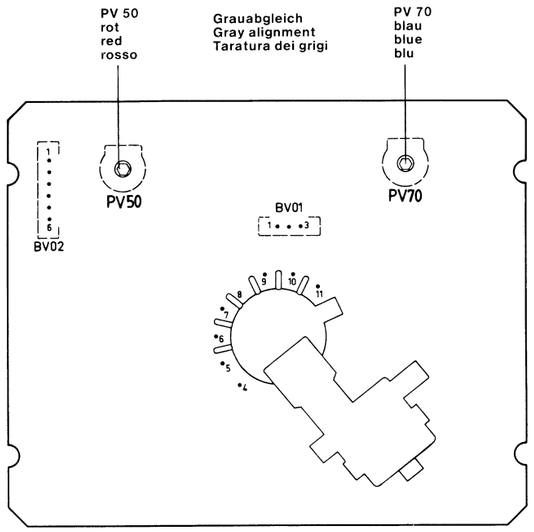


Bedienteil
Control unit
Elemento di comando

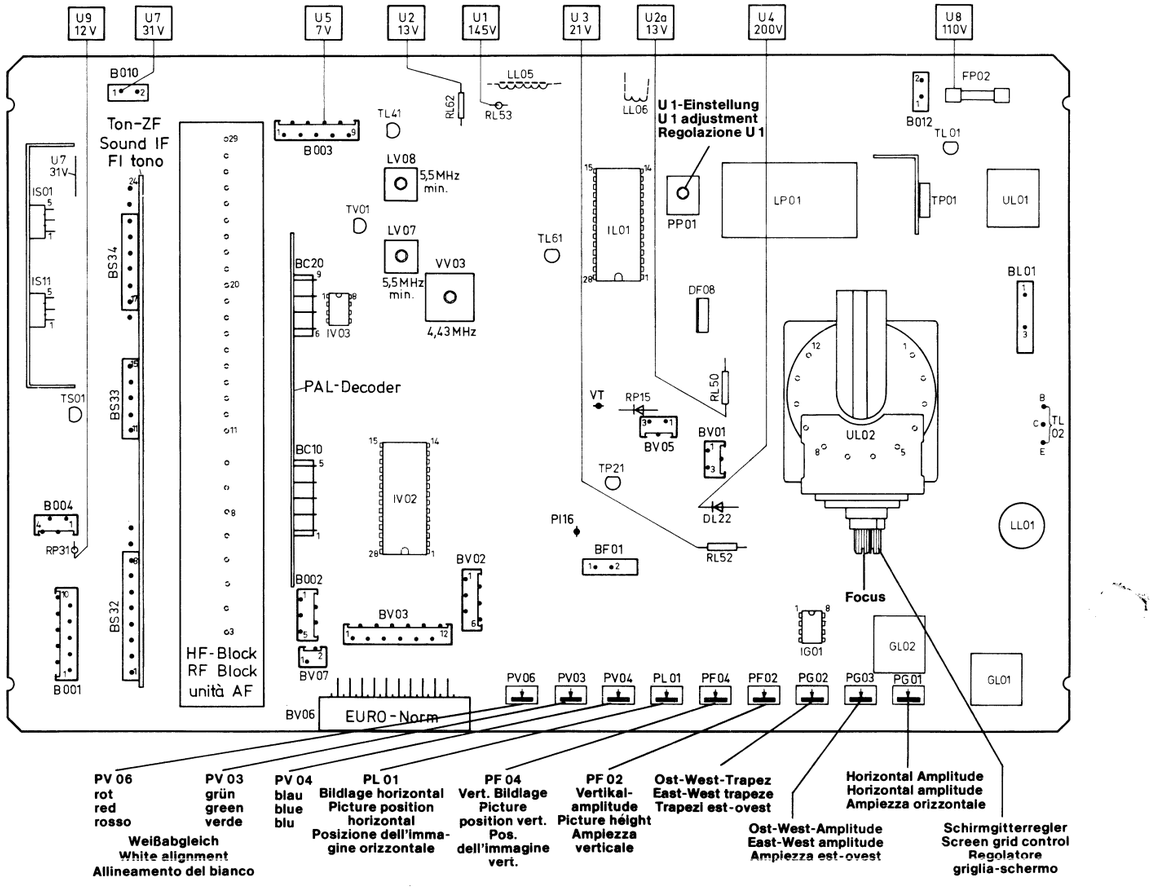


Infrarot-Geber
Infra-red generator
Telecomando infrarossi
CNA 583.530



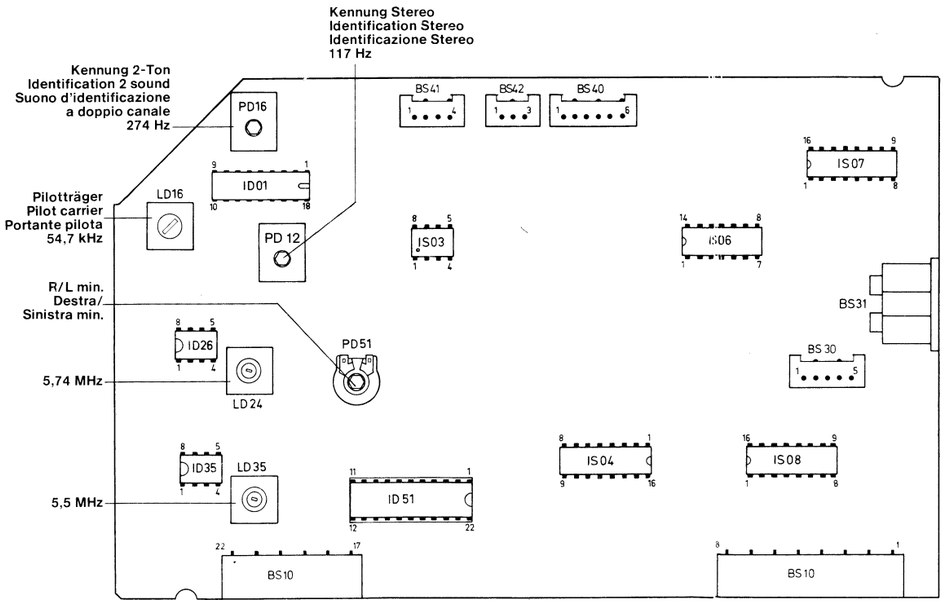


Bildrohranschluß-Platine
P.C.B. CRT socket
Piastra zoccolo cinescopio
CNA 592.653
Lötseite – Soldered side – Lato saldature

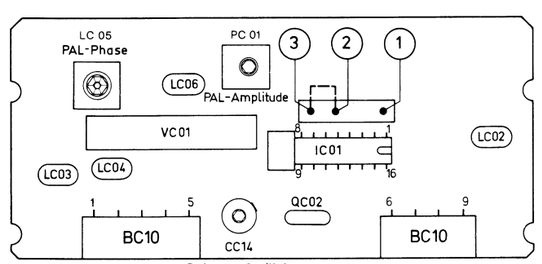


Grundplatte
Basic P.C.B.
Piastra di base
Bestückungsseite – Component side – Parte componenti

Infrarot-Geber
Infra-red generator
Telecomando infrarossi
CNA 583.530



Ton-ZF/Stereo-Modul
Sound IF Stereo module
Modulo FI tono stereo
CNA 592.684
Bestückungsseite – Component side – Parte componenti



PAL-Decoder
Decoder PAL (MELF)
CNA 592.675
Bestückungsseite – Component side – Parte componenti

Schaltbildhinweise

Spannungen gemessen mit Instrument Ri ≧ 50 kOhm/V.

Oszillogramme gemessen mit FBAS-Signal an Antenneneingang.

ACHTUNG!

Bildröhre und Ablenksystem sind eine fest verbundene Einheit und vom Werk optimal eingestellt. Folgende Punkte sind unbedingt zu beachten:

Keine Veränderungen an den Halskomponenten vornehmen.

Keine versiegelten Schrauben am Ablenksystem lösen.

Jeglichen Zugriff (Transport) an den Halskomponenten unterlassen.

① ... ㉑

Anschlüsse der Europa-Normbuchse.

[1] ... [12]

Anschlüsse der Stiftleiste BV 03 (Videotext).

Sicherheitszeichen

Diese Bauteile sind bei Reparaturen nur durch die vom Hersteller geprüften und angegebenen Originalteile zu ersetzen, um die vorgesehene Betriebssicherheit zu gewährleisten.

Alle nicht gekennzeichneten Dioden 1 N 4148

x Leitung/Steckerleiste nicht angeschlossen

Die in diesem Gerät entstehende Röntgenstrahlung ist ausreichend abgeschirmt. Beschleunigungsspannung: max. 26 kV.

Änderungen vorbehalten.

Circuit notes

Voltage measured with instrument Ri ≧ 50 kOhm/V.

Oscillograms measured with colour bar signal to antenna input.

NOTE!

Cathode ray tube and deflection system are a complete fixed unit which is optimally adjusted at the factury. It is essential that the following points be observed:

Do not alter the position of the neck components.

Do not slaken any sealed screws.

Do not lift or hold the unit by the neck components.

① ... ㉑

Connections of the Eurosocket.

[1] ... [12]

Connections of the socket strip BV 03 (Teletext).

Components designated by the safety symbol should, when necessary for repair, only be replaced by original parts produced and proofed by the manufacturer. Only then can the original operational safety be guaranteed.

Diodes not designated all 1 N 4148.

x Lead / socket strip not connected

The X-ray radiation generated by this receiver is adequately screened. Acceleration voltage: max. 26 kV.

Subject to modification.

Indicazione sullo schema

Tensioni misurate con strumento Ri ≧ 50 kOhm/V.

Oscillogrammi rilevati con segnale a barre di colore all'ingresso d'antenna.

ATTENZIONE!

Il cinescopio ed il giogo di deflessione formano un'unità solidamente collegata e sono regolati in modo ottimo dalla fabbrica. E'indispensabile osservare le istruzioni seguenti:

Non effettuare alcuna modifica sui componenti a collare.

Non togliere le viti sigillante sul giogo di deflessione.

Per il trasporto mai sollevare il cinescopio dal giogo.

① ... ㉑

Collegamenti della presa Peritelevisione.

[1] ... [12]

Collegamenti della lista presa BV 03 (Televideo).

Contrassegno di sicurezza.

Nel caso di riparazione questi elementi devono venire sostituito soltanto con delle parti di ricambio originali controllati e designati da parte del fabbricante per garantire la sicurezza di funzionamento prevista.

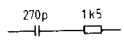
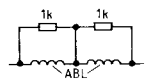
Tutti i diodi non contressegnati 1 N 4148.

x Linea / lista presa non collegate

Le radiazioni X generate in questo televisore sono sufficientemente schermate. Tensione di accellerazione: max. 26 kV.

Con riserva di modifiche.

Zusatzbeschaltung der Ablenkeinheit
Supplementary circuitry of the deflection unit
Circuiti supplementari del giogo di deflessione

Bildröhrentyp Type of picture tube Tipo di cinescopio	Horizontal Orizzontale	Vertikal Vertical Verticale
Videocolor 26" A 67 – 711 X Videocolor 22" A 56 – 711 X		
Toshiba 20" 510 WZB 22 TC 03